REMARKS

I. Status of the Claims

Claims 49-98 are pending. Without prejudice or disclaimer, claims 55-57 are cancelled herein and claims 49, 58, 59, and 82 are amended herein.

Specifically, claims 49 and 82 are amended to recite that "the belt structure comprises at least one layer of a plurality of circumferential coils, axially arranged side by side, of at least one cord wound at substantially null angle with respect to the equatorial plane of the tyre" and "the at least one layer of a plurality of circumferential coils" is associated with the at least one layer of a crosslinked elastomeric material. Claim 58 is amended to recite that the at least one layer of a crosslinked elastomeric material is disposed between the carcass structure and the at least one layer of a plurality of circumferential coils. Claim 59 is amended to recite that the at least one layer of a crosslinked elastomeric material is disposed between the at least one layer of a plurality of circumferential coils and the tread band. Support for these amendments can be found in the claims as originally filed and the specification, e.g., claims 55-57 and specification as-published (U.S. Patent Application Publication No. 2006/0137797) at ¶ [0091]. Thus, no new matter is presented.

II. Rejections Under 35 U.S.C. § 102(b)

The Examiner rejects claims 49-54, 62-69, 74-85, 88, 89, 91, and 94-98 under 35 U.S.C. § 102(b) as being allegedly anticipated by EP 1 193 085 to Larson ("Larson"). *See* Office Action at 2. According to the Examiner, "Larson is directed to a pneumatic tire construction comprising a belt structure (rubber/cord laminate), wherein said belt structure comprises an inorganic material in the form of a clay (e.g. smectite clay)." *Id.*

The Examiner also notes that "Larson suggests the inclusion of intercalated organoclays (in rubber/cord laminates, such as belt plies) that are at least partially exfoliated in situ, wherein the exfoliated platelets have a thickness of about 1 nanometer and the particles of the stacked platelets have a thickness between 10 and 40 nanometers." *Id.*

Applicants respectfully traverse. However, in order to expedite prosecution, but without acquiescing to the Examiner's rejection, Applicants have amended 49 and 82 to incorporate the elements of claim 55, which the Examiner has found allowable over Larson. Specifically, amended claims 49 and 82 now recite that "the belt structure comprises at least one layer of a plurality of circumferential coils, axially arranged side by side, of at least one cord wound at substantially null angle with respect to the equatorial plane of the tyre" and "the at least one layer of a plurality of circumferential coils" is associated with at least one layer of a crosslinked elastomeric material.

Furthermore, because claims 50-54, 62-69, 74-81, 83-85, 88, 89, 91, and 94-98 depend, either directly or indirectly, from amended claims 49 or 82, and, thus require all the limitations of amended claims 49 and 82 (and, thus old claim 55), Applicants respectfully submit that the Examiner's rejection of these dependent claims should be withdrawn in view of the presently amended claims.

III. Rejections Under 35 U.S.C. § 103(a)

A. The Examiner rejects claims 56, 58-61, 70-73, 86, 87, 92, and 93 under 35 U.S.C. § 103(a) as being allegedly obvious over Larson. *See* Office Action at 3-4. According to the Examiner, "Larson is directed to a pneumatic tire construction comprising a belt structure (rubber/cord laminate), wherein said belt structure comprises

an inorganic material in the form of a clay (e.g. smectite clay)." *Id.*; *see* Larson at ¶ [0011]. The Examiner also notes that "Larson suggests the inclusion of intercalated organoclays (in rubber/cord laminates, such as belt plies) that are at least partially exfoliated in situ, wherein the exfoliated platelets have a thickness of about 1 nanometer and the particles of the stacked platelets have a thickness between 10 and 40 nanometers." Office Action at 2; *see* Larson at ¶ [0024].

Applicants respectfully traverse. However, in order to expedite prosecution, but without acquiescing to the Examiner's rejection, Applicants have amended 49 and 82 to incorporate the elements of claim 55, which the Examiner has found allowable over Larson. Because claims 58-61, 70-73, 86, 87, 92, and 93 depend, either directly or indirectly, from claims 49 or 82, and, thus require all the limitations of claims 49 and 82 (and, thus old claim 55), Applicants respectfully submit that the Examiner's rejection of these dependent claims should be withdrawn in view of the presently amended claims.

B. The Examiner rejects claims 49-98 under 35 U.S.C. § 103(a) as being allegedly obvious over Tanaka (JP 01109107) in view of U.S. Patent No. 6,598,645 to Larson ("the '645 patent"). *See* Office Action at 4-5. The Larson '645 patent is related to the Larson EP '085.[1] The Examiner states that "Tanaka is directed to a motorcycle tire construction comprising a carcass structure 5, a belt structure 6-9, a tread band 1, a pair of sidewalls 2, and a pair of bead wires/cores 4." *Id.* The Examiner, however,

[1] Because the specification for the Larson '645 patent is essentially identical to Larson EP '085, for the sake of brevity, Applicants do not repeat in this section the reasons why the '645 patent does not render the invention obvious.

concedes that "Tanaka fails to include an elastomeric material that is 'associated' with said belt structure and comprises at least one layered inorganic material comprising an individual layer thickness from 0.01 to 30 nanometers." *Id.* at 5. Nonetheless, the Examiner concludes that it would have been obvious to include the elastomeric composition containing an inorganic material of the '645 patent in the belt construction of Tanaka because "it is well known to include inorganic materials to improve the reinforcement of a given elastomeric composition." *Id.*

Applicants respectfully traverse for at least the following reasons.

First, contrary to the Examiner's position, the mere fact that the '645 patent discloses using inorganic material to increase rubber stiffness of certain components of a tyre with only a small increase of Tan Delta value would not have motivated one skilled in the art to include the elastomeric composition in the spiral belt plies of Tanaka. Specifically, neither the '645 patent nor Tanaka teaches or suggests why a person of ordinary skill in the art would choose to associate the at least one layer of crosslinked elastomeric material to the zero-degree cord layer or any other specific layer in the belt structure. The teachings of the '645 patent are too general. Further, the Examiner has not shown that a person skilled in the art would believe that increasing rubber stiffness in the zero-degree cord layer would provide any perceivable benefit to the tire of Tanaka.

Second, even assuming for the sake of argument that one skilled in the art would have been motivated to combine the belt structure of Tanaka with the elastomeric composition containing an inorganic material of the '645 patent, the resulting belt structure is different than the claimed invention. Applicants note that the '645 patent

discloses a belt ply, which is "comprised of a laminate of a rubber composition and a plurality of spaced apart cords disposed in a substantially parallel relationship to each other, **wherein said rubber composition encapsulates said cords**." '645 Patent, col. 3, lines 46-50 (emphasis added). In contrast, the claimed layer of crosslinked elastomeric material does **not** contain any cord. Specifically, the claimed **layer** of crosslinked elastomeric material is separate and distinct from the at least one **layer** of a plurality of circumferential coils, axially arranged side by side, of at least one cord wound at substantially null angle with respect to the equatorial plane of the tyre. *See* Specification as-published, Claims and Figures 1 and 2. However, unlike Larson, the layer of crosslinked elastomeric material according to the present invention does not contain any cord and, therefore, does not act as a belt ply. Larson, therefore, suggests using the elastomeric material comprising inorganic layered material as a **belt layer**, which **contains cords**.

Accordingly, if one skilled in the art was motivated to combine the elastomeric composition containing an inorganic material of the '645 patent in the belt construction of Tanaka, which Applicants do not concede, then layers 7, 8, and 9 of Tanaka would have been modified to comprise an elastomeric material comprising inorganic layered material **and** zero-degree cord, which stands in stark contrast to the claimed invention.

Moreover, one skilled in the art would not have reasonably expected to successfully obtain effective reinforcement to a motorcycle tyre by associating the at least one layer of crosslinked elastomeric material to the zero-degree cord layer included in the belt structure. Indeed, merely adding the inorganic material of the '645 patent to the belt structure of Tanaka would not have resulted in an effective

reinforcement, both in longitudinal and in traversal direction, to a motorcycle, particularly during bending when the tyre is subjected to remarkable transversal forces.

Accordingly, Applicants respectfully submit that the Examiner has not established a *prima facie* case of obviousness with respect to claims 49-98, and, therefore, the rejection should be withdrawn.

Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration of this application and the timely allowance of the pending claims.

If the Examiner believes a telephone conference could be useful in resolving any of the outstanding issues, he is respectfully urged to contact Applicants' undersigned counsel at 202-408-4152.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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